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(21) International Application Number: PCT/EP98/06875 (22) International Filing Date: 30 October 1998 (30.10.98) (30) Priority Data: MO97A000199 31 October 1997 (31.10.97) IT (71)(72) Applicant and Inventor: LOLLI, Marcello [IT/IT]; Via San Lorenzo, 14/A, I-41051 Castelnovo Rangone (IT). (74) Agent: CRUGNOLA, Pietro; Luppi & Crugnola S.r.l., Viale Corassori, 54, I-41100 Modena (IT).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: A COMMUNICATION METHOD AND SYSTEM (57) Abstract A communication method, particularly a communication method intended to issue to a consumer a receipt means acknowledging a transaction for the purchase of goods and/or services performed with a remote dealer, said receipt means being usable to benefit from said goods and/or services, the method comprises transmitting data concerning said transaction from said remote dealer to said consumer via a telephone network, receiving said data by means of receiving means connected to said telephone network and recording said data on a removable data recording support. A communication system comprising transmitting means and receiving means for vocal signals and/or data, said means being connectable via a telephone network to other remote transmitting and receiving means for vocal signals and/or data, reading means suitable for reading data recorded on a data recording support, recognising means suitable for causing said other remote means to recognise said transmitting and receiving means; the apparatus further comprises recording means suitable for storing data received by said transmitting and receiving means via said telephone network on said data recording support.		

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A communication method and system

The invention concerns a communication method and system, particularly a communication method and a system intended to issue a receipt means to a consumer, said receipt means containing data concerning a commercial transaction performed with a remote dealer for the purchase of goods and/or services, such as purchase of railway tickets, air tickets, tickets for shows, receipts of stakes in forecast games, or drawing games, etc.

It is known from the state of art to perform commercial transactions using bank cards or credit cards, or magnetic cards paid in advance, such as, for instance, telephone cards in which an amount of money is registered which can be used by the consumer for the transaction, the cost of the transaction being deducted from said amount.

The use of bank cards or credit cards, or magnetic cards paid in advance, for the above mentioned transactions requires usually that the consumer goes personally where the negotiable instruments concerning the transactions are issued, whether by an operator, or by devices operated by means of said bank cards, credit cards or magnetic cards paid in advance, which implies unavoidable troubles and losses of time.

The present invention intends to provide a method and a system which allow a consumer to perform commercial transactions which may comprise the issuance of a negotiable instrument, for instance from his house, or place of work, or using his mobile phone.

According to a first aspect of the invention there is provided a communication method, particularly a communication method intended to issue to a consumer a receipt means containing data concerning a commercial transaction for the purchase of goods and/or services performed with a remote dealer, said receipt means being usable to benefit from said goods and/or services, characterised in that it comprises transmitting said data from said remote dealer to said consumer via a telephone network, receiving said data by means of receiving means connected to said telephone network and recording said data on a removable data recording support.

According to a further aspect of the invention there is provided a communication system comprising transmitting and receiving means for vocal signals and/or data, said means being connectable via a telephone network to other remote transmitting and receiving means for vocal signals and/or data, reading means

suitable for reading data recorded on a data recording support, recognising means suitable for causing said other remote means to recognise said transmitting and receiving means, characterised in that it comprises recording means suitable for storing data received by said transmitting and receiving means via said telephone network.

The method and the system according to the invention make possible to made available to a consumer a receipt means consisting, for instance, of a data recording support, such as a card with a magnetic strip, or a card with an electronic memory, containing data certifying a commercial transaction for the purchase of goods and/or services performed with a remote dealer, for instance by means of a telephone call, said data being usable by the consumer in order to benefit from said goods and/or services. When services are purchased, such as railway tickets, air tickets, or tickets for a sport or cultural event, the data stored on the data recording support may be used to obtain the issuance of the ticket concerning the above mentioned transaction from ticket issuing machines arranged in a railway station, in an airport, or in a place where said sport or cultural event takes place. Therefore the consumer is not obliged any more to go to the dealer, with which he has made the transaction, in order to obtain the ticket, with a considerable saving of time.

In addition, the method and the system according to the invention may be used by a consumer to make stakes in forecast games of drawing games, receiving on said data recording support the data concerning the stake made .

The invention will be described now by way of a non-limiting example.

The method and the system according to the invention provides for the use of means for transmitting and receiving vocal signals and/or data, which may comprise a telephone apparatus, stationary or mobile, which may be connected to a telephone network. The telephone apparatus is associated with means for reading and recording data on a data recording support such as, for instance, a card with magnetic strip, a floppy disk, a card with electronic memory, even a remotely readable electronic memory, or an optically readable disk. The data reading and recording means may be incorporated in the telephone apparatus.

On the data recording support data are registered which allow the consumer to be identified and may be associated, in a database held by a dealer of goods and/or services, with data concerning the bank details and/or the credit card of the consumer, in order to debit the transaction performed.

The reading means are associated with data transmitting means for

transmitting to said telephone network the data read on said data recording support by the reading means. The data transmitting means may be suitable for transmitting data at the same time as vocal signals are transmitted by said telephone apparatus. The data transmitting means may be operatively connected to the keyboard of the telephone apparatus, in order to make possible to transmit data using said keyboard.

The data recording means are associated with receiving means capable of receiving data from said telephone network, in order to have them registered on said data recording support. The data receiving means may be capable of receiving data transmitted to said telephone apparatus together with vocal signals. In that event, the data receiving means are associated with recognising means capable of recognising said data and separating them from said vocal signals.

The method and the system according to the invention may provide for a single data recording support on which data capable of allowing the consumer to be identified are permanently stored and data concerning the transaction performed are erasably stored each time. As an alternative, the invention may provide for a first data recording support on which data capable of allowing the consumer to be identified may be permanently stored and at least a further data recording support on which data concerning the transaction made are erasably stored each time. This last alternative is preferred because it allows the consumer to perform a plurality of transactions during a single telephone call, by recording the data of each transaction on a separate data recording support, and to use said separate support to benefit from the goods and/or the services purchased, independently of the possession of an other data recording support containing data allowing the consumer to be identified.

The method and the system according to the invention work as follows: a consumer, who wishes to perform a transaction for the purchase of goods and/or services, gets a connection with a dealer of said goods and services, via a telephone line. After getting the connection with said dealer, the telephone apparatus may transmit an identifying code which is associated, in a database of the dealer, with the identifying data of the consumer recorded on the data recording support. This in order to avoid that, in the event that the data recording support containing the identifying data of the consumer is stolen or lost, the recording support might be used by a non-authorised person.

Alternatively, the the consumer may be recognised only by means of the

identifying code of the telephone apparatus, or by means of data capable of allowing the consumer to be identified and recorded on the data recording support.

When the transaction has been performed, the dealer transmits the data concerning the transaction to the telephone apparatus of the consumer via the telephone line; said data are recognised by the recognising means and recorded on the data recording support by the recording means. In addition, the dealer may transmit to the telephone apparatus of the consumer a control code allowing the data recorded on the data recording support to be read and transmitted to the dealer, so that the dealer may check whether they are correct.

In addition, on the data recording support, the telephone number of the remote dealer may be recorded together with a sequence of codes which is capable of operating automatically the telephone apparatus of the consumer in order to dial said telephone number. In that event, the telephone apparatus is equipped with interpreting means capable of interpreting the code sequence, which may be read by the reading means, and activating the calling means of the telephone apparatus. The telephone apparatus may be equipped with displaying means and/or printing means associated with the reading means which read the data recording support, in order to allow the consumer to check and print, if the case may be, the data concerning the transaction which has been performed and recorded, even after the end of the telephone connection.

The data recording support may be used subsequently by the consumer, for instance in the place where the consumer intends to benefit from a service purchased by means of said transaction, to obtain a paper negotiable instrument which allows him to benefit from the service, such as, for instance, a railway ticket, an air ticket or a tickets for a sport or cultural event. As an alternative, the data recording support may be used by the consumer to be authorised by suitable apparatus to have access to a sport or cultural event, to a transport means, and so on, and to obtain a note indicating the seat reserved to the consumer, if the case may be.

The consumer may use the data recorded on the data recording support and concerning a transaction performed to check the validity of the transaction by connecting again with the dealer of goods and/or services, or to have the cost of the transaction paid back, if the consumer renounce to benefit from the goods or services purchased.

In practice, the method and the system according to the invention may be

modified without departing from the extent of protection of the present invention.

CLAIMS

1. A communication method, particularly a communication method intended to issue to a consumer a receipt means acknowledging a transaction for the purchase of goods and/or services performed with a remote dealer, said receipt means being usable to benefit from said goods and/or services, characterized in that it comprises transmitting data concerning said transaction from said remote dealer to said consumer via a telephone network, receiving said data by means of receiving means connected to said telephone network and recording said data on a removable data recording support.
2. A method according to claim 1, further comprising identifying the consumer by the remote dealer, said identifying comprising reading from said removable data recording support, by means of reading means, data capable of allowing the consumer to be identified, transmitting said data to said remote dealer by means of transmitting means connected to a telephone network.
3. A method according to claim 1, or 2, wherein said transmitting means and said receiving means are associated with a telephone apparatus.
4. A method according to claim 1, or 2, wherein said transmitting means and said receiving means are integral with a telephone apparatus.
5. A method according to one of preceding claims, further comprising recording data concerning said commercial transaction on said removable data recording support by means of recording means, reading said data by means of reading means, transmitting said data to said remote dealer by means of said transmitting means.
6. A method according to claim 5, wherein said recording is obtained using a keyboard of said telephone apparatus.
7. A method according to one of preceding claims, further comprising recording data capable of allowing the consumer to be identified on said removable data recording support.
8. A method according to claim 7, further comprising transmitting to said remote dealer said data capable of allowing the consumer to be identified.
9. A method according to one of claims 3 to 8, further comprising transmitting to said remote dealer data allowing said telephone apparatus to be identified.
10. A method according to one of preceding claims, further comprising using a first removable data recording support intended for recording data capable of allowing the consumer to be identified, and at least one further removable data

recording support intended for recording data concerning a transaction performed by the consumer with a remote dealer.

11. A communication system comprising transmitting means and receiving means for vocal signals and or data, said means being connectable via a telephone network to other remote transmitting and receiving means for vocal signals and/or data, reading means suitable for reading data recorded on a data recording support, recognising means suitable for causing said other remote means to recognise said transmitting and receiving means, characterised in that it further comprises recording means suitable for storing data received by said transmitting and receiving means via said telephone network on said data recording support.

12. A system according to claim 11, wherein said recording means may be controlled by said remote means.

13. A system according to claim 11, or 12, wherein said reading means may be controlled by said remote means.

14. A system according to one of claims 11 to 13, wherein said transmitting and receiving means are associated with a telephone apparatus.

15. A system according to claim 14, wherein said transmitting and receiving means are integral with a telephone apparatus.

16. A system according to claim 15, wherein said telephone apparatus is a mobile telephone apparatus.

17. A system according to claim 15, wherein said telephone apparatus is a satellite telephone apparatus.

18. A system according to claim 15, wherein said telephone apparatus is a video telephone apparatus.

19. A system according to one of claims 11 to 18, wherein said transmitting means comprises a data processing system connectable to said telephone network.

20. A system according to one of claims 11 to 18, wherein said data recording support is a card with a magnetic strip.

21. A system according to one of claims 11 to 18, wherein said data recording support is a card with an electronic memory.

22. A system according to one of claims 11 to 18, wherein said data recording support is a card with a remotely readable electronic memory.

23. A system according to one of claims 11 to 18, wherein said data recording support is a floppy disk.

24. A system according to one of claims 11 to 18, wherein said data recording support is an optically readable disk.
25. A system according to one of claims 14 to 24, wherein said transmitting means may be controlled by means of a keyboard of a telephone apparatus.
26. A system according to one of claims 11 to 25 wherein said transmitting means are operatively associated with said reading means.
27. A system according to one of claims 11 to 26, further comprising receiving means capable of receiving data transmitted via said telephone network, said receiving means being associated with said recording means.
28. A system according to claim 27, wherein said receiving means are associated with recognising means capable of recognising data transmitted together with vocal signals via said telephone network.
29. A system according to one of claims 11 to 28, wherein said reading means are associated with displaying means capable of displaying data registered on said data recording support.
30. A system according to one of claims 11 to 29, comprising a first data recording support on which data capable of allowing a consumer to be identified by the system are permanently recorded, and at least a further data recording support on which data transmitted via said telephone network may be erasably recorded.
31. A system according to one of claims 11 to 30, further comprising printing means capable of printing data recorded on said data recording support.
32. A system according to claim 31, wherein said printing means are integral with said telephone apparatus.
33. A system according to claim 31, or 32, wherein said data recording support is provided with portions which may be printed by means of said printing means.
34. A telephone apparatus comprising reading means capable of reading data recorded on a data recording support, characterised in that it further comprises recording means capable of recording data on said data recording support.
35. A telephone apparatus according to claim 34, wherein said recording means are capable of recording on said data recording support data transmitted to the telephone apparatus via a telephone network.
36. A telephone apparatus according to claim 34, or 35, further comprising displaying means capable of displaying data recorded on said data recording

support.

37. A telephone apparatus according to one of claims 34 to 36, further comprising printing means capable of printing data recorded on said data recording support.

38. A telephone apparatus according to one of claims 34 to 37, wherein said printing means are capable of printing data transmitted to the telephone apparatus via a telephone network.

39. A telephone apparatus according to one of claims 34 to 38, wherein said printing means are capable of making printings on said data recording support.

40. A telephone apparatus according to one of claims 34 to 39, further comprising interpreting means capable of interpreting a sequence of control signals recorded on said data recording support in order to control a telephone connection with a remote user of a telephone network.

41. A telephone apparatus according to one of claims 34 to 40, further comprising identifying means capable of allowing the telephone apparatus to be identified during a connection with a remote user of a telephone network.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 98/06875

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 G07F7/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 G07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 94 27258 A (INTERACTIVE TELEVISION SYSTEMS ;RHOADES DONALD E (US); SPAULDING J) 24 November 1994 see claim 1; figures 2A,4,6	1-15, 19, 21,22, 25-41 16-18, 20,23,24
A	WO 96 13814 A (VAZVAN BEHRUZ) 9 May 1996 see claim 1; figure 1	1-41
A	EP 0 713 198 A (HITACHI LTD) 22 May 1996 see claim 1; figure 1	1-41
A	WO 94 11849 A (VATANEN HARRI TAPANI) 26 May 1994 see claim 1; figure 1	1-41

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
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